

Percutaneous Tracheostomy

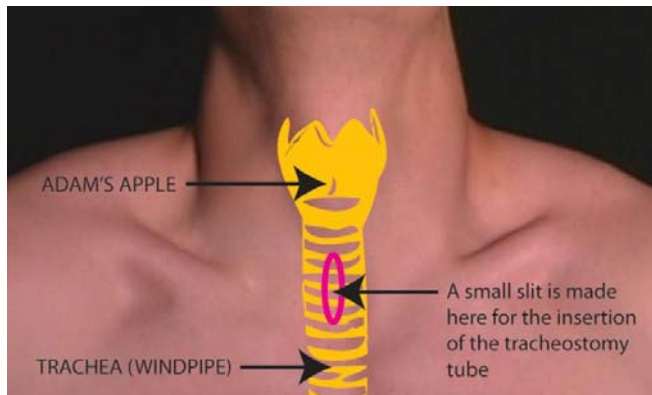


Figure 1. Tracheostomy

What is this procedure?

Tracheostomy (Figure 1) is a procedure to create an opening through the skin of neck into the trachea (windpipe). After the opening is created, a tracheostomy tube (Figure 2) will be inserted. This is a temporary tracheostomy. The tracheostomy tube will be removed when patient's condition improves.



Figure 2. Tracheostomy tube

Why is there a need to do it?

Major reasons for a tracheostomy are: 1. To keep airway clear for breathing; 2. To bypass the upper airway (Adam's Apple and above) which has become obstructed; 3. To make cleaning and removal of secretions and phlegm from the airway easier; 4. To permit long-term ventilatory support by a breathing machine, with or without the consideration of coming off the machine eventually when fit. 5. Compared to the long breathing tube through the mouth, tracheostomy is more comfortable and promotes better oral hygiene

How is it done?

The procedure is usually performed in the intensive care unit or in the operating theatre under special circumstance. Anaesthetic medication is given both directly onto the wound and through the blood circulation so that the patient is unaware of pain. A small

opening is made at the lower neck region in between the cartilages of the windpipe. A tracheostomy tube of suitable size is then inserted and secured by stitches. After the procedure, we will connect a device for both humidification and administration of oxygen.

While the tracheostomy is there, speaking/talking and eating via mouth is usually not possible temporarily. However, speaking is possible among some patients under supervision of doctors, nurses and speech therapists. Eating may be possible when the patient's condition is stable, but it should only be started after careful assessment and close supervision.

When can the tracheostomy tube be removed?

The tube can usually be removed when the patient can breathe without ventilator support and is able to clear secretions from the airway by adequate coughing effort. The wound opening will close and heal by itself, leaving scarring.

Risks and complications

The procedure is generally safe for most patients. However, the risk of developing complication always exists, alike all medical procedures. Medical staff will make every effort to reduce their likelihood.

General risks: General risks of anaesthesia apply, such as risks to breathing and disturbances to blood pressure, etc.

Specific risks:

During or immediately after the procedure:

- Bleeding of the operative site: the blood may go into the airway and can cause aspiration pneumonia and bronchospasm.
- Pneumothorax and subcutaneous emphysema.
- Major blood vessels injury on neck: rare, however, it can be life threatening.
- The tracheostomy tube dislodgement around the windpipe can be serious if it leads to lack of oxygen supply.
- Cardiac arrest may occur when the procedure is complicated by unforeseeable event.

Days to weeks after the procedure:

- Rarely, massive bleeding may occur a few days to several weeks after tracheostomy. If necessary, another operation to stop bleeding may be necessary;
- Wound Infection: may require antibiotic treatment and/or drainage;
- Sudden and severe tube blockage by secretion can result in sudden death;
- Swelling inside the trachea around the tracheostomy tube (subglottic edema);
- Communication between trachea and the esophagus (tracheoesophageal fistula)

Possibility that the procedure cannot be carried out

There is a possibility that the procedure cannot be carried out, for example, due to unexpected anatomy, breathing or bleeding complications which require termination of the procedure.

Other treatment options

If the patient chooses not to perform this procedure, it may affect the overall condition. The change of the condition is affected by a variety of clinical factors, including the individual patient's physical condition before the onset of illness, the type of disease, the response to treatment and the progress, etc. Your doctor will explain other suitable options to you.

Disclaimer

The information provided in this booklet is for general reference only. The risks and complications listed above are not exhaustive. Please consult your attending doctor for details.